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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/477,422	01/04/2000	JON C. SCHAEFFER	13DV-13434	9215

7590

07/24/2003

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EXAMINER

MEEKS, TIMOTHY HOWARD

ART UNIT

PAPER NUMBER

1762

19

DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/477,422

Applicant(s)

SCHAEFFER, JON C.

Examiner

Timothy H. Meeks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-13, 16-18, 47, 89-94 and 112 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-13, 16-18, 47, 89-94 and 112 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s) _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 November 2002 has been entered.

Claim Rejections - 35 USC § 112

Claims 47 and 89-94 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification is void of a written description which conveys that applicants had possession of the following subject matter as claimed in claims 47 and 87-92:

- In claim 47, "under deposition conditions effective to provide an outer aluminide layer region comprising a substantially single phase solid solution intermediate phase and an inner diffusion zone region proximate the substrate";
- In claim 47, "said intermediate phase including an average nickel concentration of about 50 to about 60 % by weight so as to be non-stoichiometric relative to intermetallic compounds of aluminum and nickel, or aluminum and platinum, said outer aluminide

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layer region being substantially free of phase constituents other than said intermediate phase";

- In claim 47, "oxidizing the diffusion aluminide layer under temperature and oxygen partial pressure conditions effective to form an alpha alumina layer"; and
- In claim 89, "and from about 31 percent by weight to about 74 percent by weight integrated nickel content".

There is no mention whatsoever, explicit or implied, of the above-specified claimed subject matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Conner et al. (ASME article).

The disclosed CVD PtAl coating process disclosed at pages 2 and 5 and the representation in figure 3 for the "CVD PLATINUM ALUMINIDE" anticipates the claimed process.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Conner.

The amount of platinum at the surface of the single phase PtAl coating of Conner in the CVD example appears to be in the range of around 23% which is slight below the lower range endpoint of "about 30%" recited in claim 11. However, because Conner discloses at page 1 that "work by numerous investigators has shown considerable improvement in both oxidation and high temperature hot corrosion resistance of aluminide coatings on many substrates with the addition of platinum", it is clear that the amount of platinum added would affect the degree of these benefits and because Conner discloses that Pt amounts in the claimed range in the other disclosed aluminide coatings are operable (remaining graphs in figure 3), it would have been obvious to have derived amounts of Pt in the range of claim 11 through routine experimentation to optimize the corrosion resistance of the coating.

Claims 9, 10, 73, and 112 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conner in view of Duderstadt et al. (5,238,752).

Conner does not disclose depositing a TBC on the aluminide layer. however, because Duderstadt discloses that deposition of a TBC layer on platinum aluminide coatings by EBPVD provides the advantages described at col. 5, lines 1-10 (abstract, col. 7), it would have been obvious to have deposited the TBC to achieve these advantages. The substrate is additionally heated to 1800 °F during the deposition of the TBC disclosed by Duderstadt which would

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constitute an annealing of the aluminide coating as required in claim 10. As to claim 71, Figure 3 clearly shows the Pt and Al concentrations in the outer surface decreasing with depth.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conner in view of Wukusick et al. (5,100,484).

Conner discloses nickel-based alloy substrates but does not disclose contents of aluminum, rhenium, etc. thereof. However, because Wukusick discloses that substrates with the claimed components are known alloys for use as turbine parts, it would have been obvious to use such conventional substrates with the expectation of their being effective for turbine substrates.

Allowable Subject Matter

Claims 16-18 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach or reasonably suggest using an aluminum source with the claimed activity along with the added claimed process limitations.

No prior art is applied to claims 47 and 89-94, however, these claims stand rejected under 35 USC 112, first paragraph.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The

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filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 8-13, 16-18, and 89-94 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 8-13, 16-18, 87-92 of copending Application No.

09/244,578. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 47, 73, and 112 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 47, 71, and 110 of copending Application No. 09/244,578. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in the overlapping ranges of Pt, Al, and Ni, concentrations.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

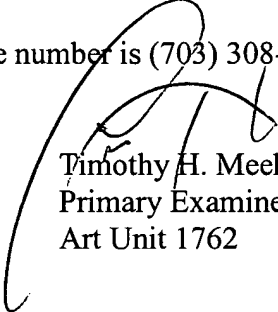
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy H. Meeks whose telephone number is (703) 308-3816.

The examiner can normally be reached on Mon., Tues., Thurs.(6-6:30), Fri.(6:30-10:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Timothy H. Meeks
Primary Examiner
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nf
July 22, 2003